

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001621**Date Inspected:** 02-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Hu Weiqing,	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	
Bridge No:	34-0006	Component:	OBG	

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector Sherri Brannon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

Bay 7-OBG Floor Beam Sub Assembly:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Lin Jiang ID#051356 groove welding at FB026-01 joining stiffener plate to floor beam plate. Mr. Lin was observed welding in the 2G (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 semi automatic. QA Inspector Brannon observed the ZPMC QC Inspector Mr. Hu Weiqing verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 60°C and measured the welding parameters to be 282 amps, 29.7 volts, a travel speed of 279 mm/min and a shielding gas flow of 14L/min. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2232-Tc-U4b-F, Revision 0.

Bay 7-OBG Floor Beam Sub Assembly:

QA Inspector Brannon randomly observed ZPMC qualified welder's Mr. Hing Yongli ID#044801 and Mr. Chen Chuanzong ID#044824 fillet welding at FB025-02 joining stiffener plate to floor beam plate. Mr. Hing and Mr. chen was observed welding in the 2F (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 semi automatic. QA Inspector Brannon observed the ZPMC QC Inspector Mr. Hu Weiqing verifying that the welding parameters and pre-heat

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were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 60°C and measured the welding parameters to be 295/297 amps, 29.0/30.0 volts, a travel speed of 417/427 mm/min and a shielding gas flow of 16/19L/min. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2132-3, Revision 0.

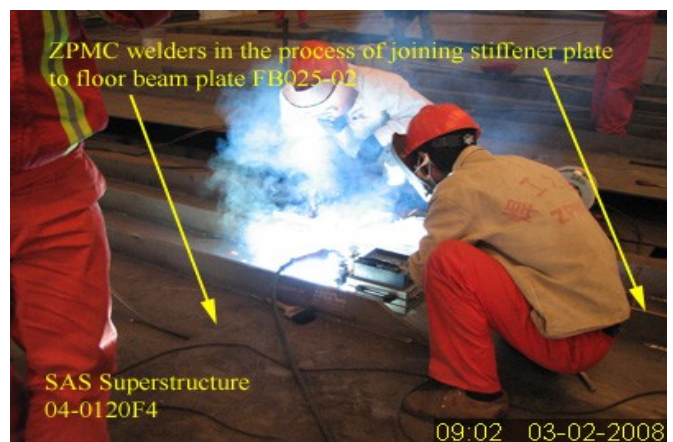
Bay 7-OBG Floor Beam Sub Assembly (CWR039):

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Zhang Qingquan ID#044774 groove welding at FB007-03 weld joint #043 joining stiffener plate to floor beam plate. Mr. Zhang was observed welding in the 2G (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 semi automatic. QA Inspector Brannon observed the ZPMC QC Inspector Mr. Hu Weiqing verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 74°C and measured the welding parameters to be 282 amps, 30.5 volts and a travel speed of 530 mm/min. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-345-FCAW-2G-FCM-Repair.

Bay 7-OBG Floor Beam Sub Assembly (repair):

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Wang Li ID#44772 groove welding at FB003-004-103, FB003-003-103 and FB003-005-103 weld joint #103 repairing diaphragm flange. Mr. Wang was observed welding in the 1G (flat) position utilizing a shielded metal arc welding (SMAW) process with a 4.0mm diameter electrode, filler metal brand THJ508Fe-1, class E7018-1 manual. QA Inspector Brannon observed the ZPMC QC Inspector Mr. Hu Weiqing verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 185°C and measured the welding parameters to be 172 amps. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-345-SMAW-1G(1F)-Repair.

The following digital photograph below illustrates observation of the activities being performed.



Summary of Conversations:

No relevant conversations on this date.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon, Sherri	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
